

SKETCH PLAN OF MELANDRA CASTLE.

Original plan, 1905, by F.A.B. and J.S. Additions, 1941, by J.A.P.

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RECENT WORK ON MELANDRA CASTLE. PRELIMINARY REPORT.

By JAMES A. PETCH, M.A.

THE following report is intended to give more detailed information than that hitherto generally available¹ of the work done in the years 1935 to 1938 at the Roman fort known as Melandra Castle, near Glossop, Derbyshire, by the Excavation Committee of the Manchester and District Branch of the Classical Association. The resources of the Committee are limited and operations were throughout on a modest scale. The average number of men employed was five, the four campaigns occupied only eight weeks in all, including filling-in, and the total expenses were well under one hundred pounds. A fifth season, already arranged, was prevented by the outbreak of the present war; so far it has not been possible to resume the work and it is now clear that there is no immediate likelihood of so doing. Results are therefore incomplete. It is hoped that some day excavation will be resumed by the Committee and that it will be possible to publish a definitive account of the fort which will cover in detail the work of the Committee and of previous workers on the site² and will include a contoured plan. The present

¹ *J.R.S.*, vol. XXVII (1937), p. 222, vol. XXVIII (1938), p. 181. "Manchester Guardian", issues of Oct. 6, 1937 and July 11, 1938.

² E.g. *Melandra Castle*, ed. R. S. Conway, Manchester Univ. Press, 1906; *Excavations at Toothill and Melandra*, ed. F. A. Bruton, Manchester Univ. Press, 1909; *Derbyshire Archaeological Journal*, vol. XXX, pp. 319-323, vol. XXXIV, pp. 153-157, *et alibi*. The plan (fig. 1) gives the approximate relationship to the fort of the building outside the north gate referred to briefly in

owner, Mr. J. Gould, of Melandra Farm, Gamesley, has most willingly granted the Committee every facility for their work and they are also obliged to the Office of Works for sanctioning disturbance of this scheduled monument.

In 1935 some exploratory work was done in the eastern half of the *retentura* and a section was cut across the earth backing of the rampart. In 1936 the presence of ditches on the east side of the fort was discovered. In 1937 there was a little exploratory work in the western half of the *retentura* but most attention was paid to the eastern half of the *praentura* where work was continued in 1938. The results of the four seasons' work are summarized under the following heads:

- (a) The defences. (i) The rampart.
(ii) The ditch system.
- (b) The interior of the fort. (i) The *praentura*.
(ii) The *retentura*.

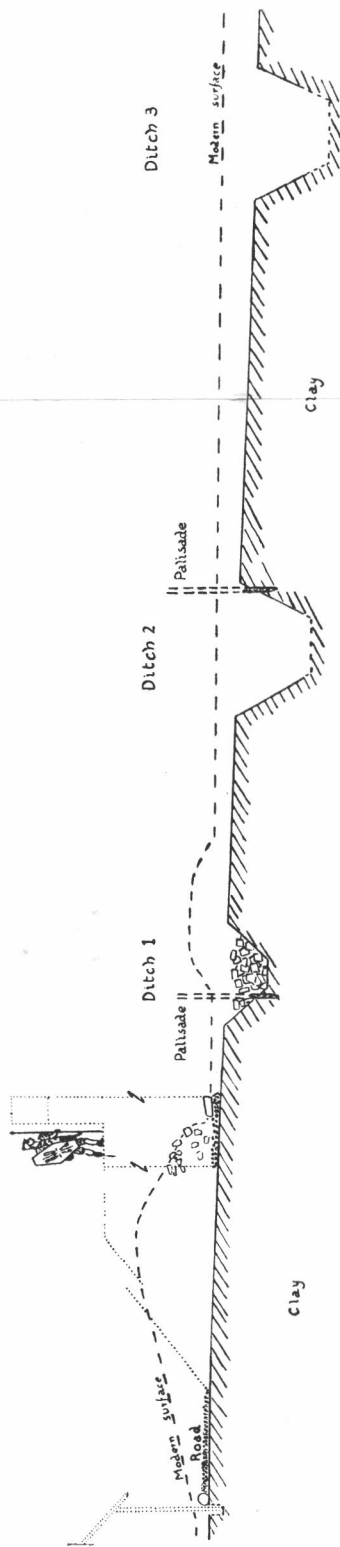
Details of the pottery and of small finds are not included in this interim account. The most interesting finds were a cup of tin from the north end of Block IV¹ and the foot-gear from Ditch 2 now on loan in the Manchester Museum.² The pottery was generally not very abundant and most of it was unstratified. All of it can be ascribed to the period between the closing years of the first and the middle of the second century A.D. (*cf.* page 63). Only two coins were found, both *denarii*, one of Vespasian the other of Marcus Aurelius.³

Excavations at Toothill and Melandra but apparently not hitherto included on any published plan. The indications given in fig. 1 are based only upon very superficial scrutiny of the existing remains.

¹ *Vide* "Notes on Ancient and Roman Tin and its Alloys with Lead", by Dr. J. A. Smythe, *Transactions of the Newcomen Society*, vol. XVIII (1937-1938), p. 258.

² Miss M. Shaw, Keeper of the Egyptology Department, kindly supervised the work of cleaning, preservation and photography.

³ Mattingley and Sydenham, vol. II, p. 23, 76 (? or 83) and vol. III, p. 230, 213 (?).



SECTION ACROSS EASTERN DEFENCES.

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(a) THE DEFENCES.

(i) The rampart.

The section cut in 1935 (fig. 2) showed that the earth backing was 17 feet thick and bounded on the inside by a cobbled road 7 feet 9 inches wide (see page 59). The road metalling was 6 inches thick and there were suggestions of a clay curb, 11 inches wide and 12 inches high, separating the rampart from the road and of clay packing at the inner edge of the road. At its highest point the top of the earth backing in its present state was 6 feet above the original clay. It was built up largely of the local sand with stones, cobbles and a little rubble with some patches of clay. The cobbles were somewhat more frequent toward the western end of the section. There was no regular bottoming noticeable. A prominent feature was a black layer, apparently decayed vegetation, which continued the line of the modern surface from above the road to the outer end of the section. It was from 2 to 4 inches thick. Pockets and layers of similar material occurred spasmodically but the layer was prominent and unbroken. No trace of an interval tower was found.

There was no regular inner facing to such masonry as remained *in situ* at the east end of the section. On one side of the section a piece of the rubble interior of the vanished masonry structure lay partly over the sandy constituent of the mound. On the other side the evidence was even more striking. One rubble fragment ran partly into the mound while just below it another fragment lay close against a pocket of clay which was irregular on all sides save that against which lay the rubble. This side of the pocket had been cut cleanly perpendicular.

The sequence of events seems to have been that a mound was first thrown up without retaining walls. In course of time this mound would spread as the occasional stones would not be a very effective bonding medium. A masonry facing was then built on the outer side and more

material added to raise the height of what now became the earth backing of a stone rampart. There was no evidence of the interval of time that had elapsed but it was long enough for the formation of a turf level represented by the black layer under the added material. This interpretation agrees with statements by earlier workers at Melandra and one of their sections which is still partly open shows traces of a similar black layer.

What was the exact thickness of the masonry facing is not certain. The distance from the irregular rubble face to the present apparent face of the rampart is approximately 3 feet. If the line of footings laid down on the 1905 plan is correct, there must have been 5 to 6 feet of masonry, most of which has completely disappeared. The line of the footings at the end of the section could not be accurately determined; there was here some disturbance due to the making of a rough drain along the foot of the rampart.

(ii) The ditch system.

As nothing was known of any ditches on the site a trench was run out 30 feet south of the east gate. Two certain ditches were found and at the end of the trench and in its southern side were what appeared to be indications of a third. Modern draining operations made it difficult to decide as between rubbish pit and butt end of a ditch. The evidence at present available is in favour of the latter interpretation: (i) the north side of the depression as uncovered was square, (ii) its width (10 feet 3 inches) agrees with the width of Ditch 2 (9 feet 11 inches), (iii) it is situated symmetrically not only as regards Ditch 2 and the fort wall but also as regards the end of Ditch 2 and the east gateway. For the present therefore it is referred to as Ditch 3 and shown as such on the plan.

Beyond the mere discovery of these three ditches other points of interest came to light. The narrow berm between the fort wall and Ditch 1 (5 feet 6 inches) as compared with

the interval of 30 feet between Ditches 2 and 3, and the width of Ditch 1 (8 feet 0 inches) as compared with the widths of Ditches 2 and 3 (above), suggest that Ditch 1 belongs to the earlier earth-walled fort, Ditches 2 and 3 to the masonry fort. Whether Ditch 1 remained open when the masonry was added to the rampart is not certain. The interval between the wall of the fort and Ditch 2 (30 feet) is the same as that between Ditches 2 and 3. In the two sections examined Ditch 1 was found to be filled with walling stones, worked stone and rubble and it seemed that at least some of this material had not merely fallen in. Any deliberate filling-in may however have been done in comparatively recent times when an attempt was made to bring the site under cultivation for wooden stakes were found in Ditch 1 similar to those which were found in Ditch 2 (below).

Though water was very troublesome a portion of Ditch 2 was examined in some detail. It was found to have a square end. In the ditch itself, beneath the modern surface, there was 2 feet of humus and then 4 feet and more of silt. The bottom of this silt was not reached but there were indications that at 4 feet from the eastern edge of the ditch the silt was approximately 6 feet 6 inches deep. The square end and both sides of the ditch fell away with a gradient of 2 in 1 so that it may be assumed to have been about 9 feet deep.

The leather footgear already referred to (page 50) was found at a depth of 3 feet 6 inches in the silt. The group includes a pair of *calligae* and the sole of a *solea*. A detailed account will be included in the final report. Here it is merely noted that the owner of the sandal cannot reasonably be assumed to have been either military or male.

Remains of a palisade were found *in situ* along the end and the eastern side of Ditch 2 and similar though not so clear remains occurred in Ditch 1. In examining the end

of Ditch 2 the remains of four uprights were found. In a second cutting across this ditch to the south were two stakes lying 14 inches apart and pieces of what seemed to be cross-members. It seems therefore that at least a considerable length of the ditch, possibly the whole length, was reinforced with a palisade as for instance at Ardoch (Perthshire) and Carlisle. The inner face of the ditch was not uncovered so that it is not known whether there was a palisade on the west side also. Possibly the Melandra ditches could be restored as for instance in Schneider's restoration of the Upper German *limes*.¹

Examination of an area in front of the east gate confirmed that Ditch 2 had never continued across the line of the entrance. A layer of gravel, sand and cobbles 8 to 10 inches thick represented the substantial remains of a metalled road. The metalling rested on the natural clay with a thin black layer representing the original surface. No curb was found and the road metal spread beyond the line of the north face of the south tower. A large fragment of unworked wood lay under the road metal.

It is not yet known whether Ditch 1 ran across the line of the east gateway. Before this can be determined a spoil heap from earlier excavations will have to be dealt with. Nor has any search yet been made for *claviculae* or *tituli*. As found neither the end of Ditch 2 nor that of Ditch 3 was deflected to mask the gateway.

Though the plan (fig. 1) shows the ditches as running on all sides of the fort this is at present pure conjecture. There are steep slopes to the west and north the present-day edge of which is very approximately indicated on the plan. At the south-west corner and along the west side a sand pit has certainly encroached upon the area available in Roman times. Whether there was ever room for Ditch 3 on the north side and at the north-east corner is

¹ E.g. *Germania Romana: Ein Bilder-atlas*, "Tafeln", t. X, 3, Buchners Verlag, 1924.

more conjectural. On the south side of the fort remains of what appears to have been a marl pit may represent the exploitation of at least one ditch.

(b) THE INTERIOR OF THE FORT.

(i) The *praetentura*.

From the work done in this area in 1937 and 1938 it would appear that in the first ground plan of the fort the eastern half of the *praetentura* was occupied by four wooden buildings built in pairs back to back. No building has yet been completely traced but the general dimensions of each may be given as 135 feet, north to south, by 29 feet 6 inches at the south end. The buildings were apparently oblong, not L-shaped; at 50 feet from its southern end Block IV was as wide as at that end, the full extent of which was uncovered.

The road between Block II and Block III was 16 feet wide inclusive of any gutters there may have been; none were found. The narrow alleys or eavesdrips between Blocks I and II and Blocks III and IV were 3 feet 6 inches and 2 to 2 feet 6 inches across respectively. From the original occupation level at the south end of the alley between I and II came most of the pottery found in 1938.

No remains of these buildings were visible above ground. Their presence was first revealed by differences in the colour of the surface of the clay which lies about 2 feet below the modern surface. Indications of the back wall of III were first found (fig. 3, *cf.* page 58), then those of the back wall of IV. When these bands of discoloured clay were dug out they were found to contain deeply embedded remains of wooden posts, all well beneath the surface of the clay (fig. 3). In 1938 remains of several wooden posts in the south end wall of II were found still projecting from the surface of a band of similarly discoloured clay.

The method of erection appears to have been to take out

a trench generally 9 to 11 inches wide—in one place as much as 24 inches—and 18 to 24 inches deep into the original clay. In these trenches at close but somewhat irregular intervals varying from $12\frac{1}{2}$ to $26\frac{1}{2}$ inches were placed upright posts or stakes 2 to $4\frac{1}{2}$ inches by $1\frac{1}{2}$ to 3 inches in cross section. At two places there were traces of heavier timbers, one say 9 by 6 inches, the other 7 by 6. The trench was then filled in with the excavated material which was rammed back hard. The posts were held by the clay; there was no trace whatsoever of sockets of any kind. Moreover the posts were placed in position, not driven in. All those that were examined had squared not pointed ends. Similarly most of the timbers shown on Trajan's Column have squared butts.

The appearance of the walls above ground is at present a matter for speculation. The wooden buildings shown on Trajan's Column appear to be for the most part framed structures covered with boards nailed to the uprights at wide intervals, often apparently only at the corners. The buildings at Melandra appear to have been quite different; the uprights are so close as to suggest some interlacing technique, as for instance that of the Highland "creel houses" which are "formed of wooden posts, interlaced with branches of trees, like wickerwork, and covered on the outside with turf."¹ Whatever may have been the material used for the walls of the Melandra buildings, whether it was wooden planks, wattle and daub, basket

¹ *Antiquity*, vol. XIII, p. 343. The whole note from which this is quoted is of interest in this relation, especially the footnote stating that "an oratory built of wood, wattling or clay was said to be built 'after the manner of the Scots', and one of stone 'after the Roman manner'." Cf. *op. cit.*, vol. XII, p. 480 *et alibi*.

If the posts at Melandra seem small, the remark of Mr. T. C. Lethbridge quoted by Sir Cyril Fox in *The Antiquaries Journal*, vol. XXI, p. 111, with reference to Viking houses in Iceland may be referred to. "There are rows of posts making aisles. I saw three cleared ones and was interested to see how small the post-holes were. They could hardly have had anything in them much bigger than a prop for a clothes-line, and yet one of the houses was huge, 100 feet long inside at least."

work, lath and plaster, no trace of it has yet been recognised. Nor is the material used for roofing any more certain. Pieces of ordinary red clay roofing tiles were found but they were not numerous. Some complete tiles were built into hearths probably belonging to an occupation later than the period of the wooden buildings.

Each of the four blocks appears to have had a passage (a closed corridor or partly open verandah) down at least one side and at both ends, both inner and outer walls being constructed by the post-trench method. The method suggests a corridor with wholly enclosed sides or at the least a verandah with the lower part of the outer wall filled in. A less laborious method of constructing a pillared verandah would be to take out individual post-holes. All individual post-holes that were found seemed to belong to the later period of occupation.

The passage at the south end of Blocks I and II was twice as wide (12 feet) as that at the south end of IV. Block I had a passage "at the back" and possibly one "at the front" as well. Other blocks also may have had a similar "back passage", for the 1905 plan shows four "oak posts", all of which fit into the conjectural restoration, one in the north end wall of Block I and three in Block II in the wall of such a back passage as was actually found in I.

As so far the complete area of no single block has been uncovered it is not known whether interior walls were built in the same way as the outer walls. Though it might seem unlikely that so laborious a method would be used for party walls, the only certain interior wall so far found, that across Block IV, was constructed in the post-trench technique. Allowing for the passage at each end this cross wall divided the apparent length of the building very nearly in the proportion of seven to three. One of the blocks shown conjecturally on the plan in the western half of the *praetentura* is therefore divided into ten rooms,

though to judge from the plans of for instance Newstead and Housesteads the interior divisions of outwardly similar blocks cannot be assumed to be evenly spaced.

Fig. 3 shows the post-trench for the back wall of Block III as first uncovered. The tips of four ranging rods rest upon the west lip of the trench which is marked by the difference in the colour of the clay. The irregularity of the trench is noticeable. The post-trench for the back wall of Block IV immediately to the west (not yet uncovered when the photograph for fig. 3 was taken) ran so true that it must have been dug by line. Possibly the trench for the back wall of III was dug "by eye" after the trench for IV had been taken out, or else the line run out for IV was thought sufficient guide for both trenches. Either method would not fail to contribute to the slight skewness of the general lay-out, a skewness which does not help in the conjectural restoration of the whole plan from the small portions so far uncovered.

Other irregularities in the setting out of the post-trenches were noted. The corners for I and II were taken out; at the north-west corner of IV there was a gap of 22 inches. The post-trench for the interior wall of the passages at the south ends of I and II ran across the intervening alley though there was a clear gap between the trenches for the outer walls.

If Blocks I to IV are correctly completed on the plan—only the south ends of the four buildings, a short piece of the west wall of IV, ninety feet or so of the back walls of III and IV and a short stretch of what is taken to be the north end of IV have so far been examined—they with the road between II and III fill completely the eastern half of the *praetentura* and leave something less than 8 feet behind the eastern rampart and about 16 feet behind the northern rampart for the *intra-vallum* road. The curb and metalling of this road were found at the south-east corner of I. The narrowness of this road in the *retentura* has



POST-TRENCH, BACK WALL OF BLOCK III.

The tips of the front four ranging rods rest on the West lip of the trench; the East lip is under the bank. The post-trench for the back wall of Block IV is on the left of the cutting, not yet exposed. The spade stands in part of the Block III trench which has been taken out; small white pegs denote remains of posts.

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already been noted (page 51). Four blocks of similar dimensions would as completely fill the western half of the *praetentura* and leave 27 feet (excluding the gutters) for the *via praetoria*. At fifty feet from the south end of IV the *via praetoria* was edged by a sandy gutter 20 inches wide and 8 inches deep. There seemed to be no curbing to the cobbles of the roadway at this point. A similar gutter 15 inches wide occurred at the presumed north end of IV but here there was a curb to the road. The width of the *via principalis* would also be 27 feet (including gutters, if any).

A fort for a *cohors quingenaria* such as Melandra is usually¹ thought to have been would normally contain six barrack blocks. If there were eight oblong buildings at Melandra as conjecturally shown on the plan two of them may have been store-sheds, work-shops or similar structures as at Housesteads. At present however the four buildings shown on the plan in the western half of the *praetentura* are wholly conjectural, symmetry being the only grounds for the conjecture apart from the consideration that it is not obvious how two buildings similar to I to IV could be placed in the *retentura*, a considerable area of which appears to have been cobbled and therefore presumably not built over (plan, fig. 1; cf. page 61). The suggested lay-out bears little resemblance to that of for instance Gellygaer and gives a somewhat cramped appearance to the internal arrangements. The lowest slope of the earth rampart would make the width of the *intra-vallum* road somewhat greater effectively than the 7 feet 9 inches of cobbling found (page 51) but, if the reconstruction suggested is even approximately correct, clearly there would be no room for anything but the simplest of military evolutions in the *praetentura* immediately behind the rampart. Possibly the *retentura* was less completely built up.

¹ E.g. by the late Dr. R. G. Collingwood in *Cumb. & West. Trans.* (New), vol. XXVIII, p. 323; cf. *ibid.*, vol. XXX, p. 102.

The absence of recognised remains of material used for the walls of I to IV has been already remarked (page 56). Whatever the material was, it is unlikely that such a bulk could have disappeared completely if the buildings simply fell into decay or that it would have attracted the attention of modern searchers after building materials. Moreover (i) portions of the wooden buildings were covered by clay floors at a relatively high level, (ii) none of the posts examined showed traces of fire, (iii) some fragments, though still fast in the clay at the bottom of the post-trenches, appeared to have been pulled askew, (iv) others appeared to have broken off short near the butt in the way posts frequently do break off when an attempt is made to pull them out after they have been deeply embedded for a time. It is therefore reasonable to infer that at least some of the wooden buildings were dismantled.¹

Over the northern half of III and IV lay a thick mass of puddled clay, apparently the floor level of a later period. The limits of this clay were not looked for nor was the floor cut through wherever it was possible to leave it undisturbed. In the alley between I and II ran a line of tumbled masonry while fragments of masonry, seemingly still *in situ*, occurred at various points (plan, numbers 6, 7, 8 and 9). The general alignment of the buildings to which these remains belonged was not identical with that of the wooden buildings I to IV though in places it seemed very close. These stone buildings may at present be assigned to a stone fort which succeeded the wooden and earth fort, to the stone fort belonging the *principia*, gateways and corner towers at present visible.

(ii) The *retentura*.

In the early days of the 1937 campaign some traces were found in the western half of the *retentura* of wooden

¹ In the "Manchester Guardian" for October 14, 1904, Dr. Bruton reports "the existence of a layer of charcoal nearly 2 feet thick near the north gate." Were the buildings pulled down and the materials burnt?

sleepers. In a trench run diagonally across this area from the north-west corner of the *principia* actual remains of two 6-foot sleepers (plan, numbers 1 and 3) and the bed of a third (plan, number 2) were found. Further traces of the structure or structures to which these belonged were not looked for. At its south-west end this trench ran into a fair amount of fallen masonry associated with a circular depression 3 feet 6 inches deep and approximately 12 feet in diameter beneath a layer of clay 4 to 5 inches thick burnt red and powdery. The pit was full to overflowing of black sludge.¹ No pottery was found in the sludge. Because of other discoveries made that year in the *praetentura* these remains were left for complete examination later but it may be suggested that here were the latrines of the house of the commanding officer.

Little has yet been learnt of the eastern half of the *retentura*. In the first of the four years some work was done in this area as it showed fewer surface signs of disturbance than any other part of the fort. At the time results were disappointing. With the knowledge of the site now available further work here might be found to be more profitable. In 1935 two short stretches of masonry in very fragmentary condition were found (plan, numbers 4 and 5); each was so perished that it was not easy to be sure which way it ran. There were also substantial remains of a cobbled area approximately 30 feet across from north to south with curbing on the north and south edges, and further north apparently a west to east road 10 feet wide including the curbs. There was also a large area of clay flooring with one post-hole and to the east a hearth. It was not possible to define the shape of any structures and any discolouration denoting post-trenches was not then recognized as such if it was uncovered.

¹ Dr. A. Raistrick, of King's College, Newcastle-upon-Tyne, kindly reported upon samples.

GENERAL CONCLUSIONS.

Included in the work which still remains to be done at Melandra Castle are:

(a) the further examination of the stone gateways and corner towers to learn more of the wooden structures which they seem to have replaced;¹

(b) the examination of the *principia* to ascertain whether the line of wooden posts found in 1906² is all that now remains of an original wooden structure on this site or whether the present stone building overlies post-trenches similar to those found elsewhere in 1937 and 1938.³

When these points have been settled and some further work done on the interior generally it may be possible to arrive at a fairly comprehensive plan of the lay-out of one Roman fort in Britain of the wooden technique period. Possibly by then funds may be found for the tidying up of the site which is already long overdue.

Two major problems which are still outstanding are (i) the dating of the earth and wood fort, (ii) the length of the occupation period of the site. A little evidence has accrued though the final answers are not yet attained. As to the date of the first foundation the wooden technique suggests the first century. No very early or necessarily Agricola pottery was found during these four years, nothing that is that need be earlier than the reign of Trajan. When the post-trench for the rear wall of Block III was cleared half of a Samian dish, Dragendorff 18/31,⁴ was found buried in the very bottom of the filling. The other half was found lying on the undisturbed clay at the edge of the post-trench. So far therefore what evidence

¹ For the north gate *vide* *Derb. Arch. J.*, vol. XXX, *loc. cit.*, for the east gate vol. XXIV, *loc. cit.*

² *Toothill and Melandra*, pp. 26 *et seq.*

³ Dr. R. G. Collingwood suggested that at Hardknott the *principia* was from the beginning partly of stone (*Cumb. and West. Trans.* (New), vol. XXVIII, p. 328).

⁴ Stamp: OF /// TRG; cf. OF PATRG on a Drag. 18/31 from Alchester and OF PATRC on a Drag. 18 from Wroxeter.

there is agrees with the generally accepted view that Melandra belongs to the Trajanic organization of the northern frontier.

The dismantling of the wooden buildings (page 60) and the addition of a masonry facing to the original rampart of earth (page 51) would on general grounds be attributable to the reorganization under Hadrian. To judge solely from the pottery found during 1935 to 1938 this stone fort was not occupied after about the middle of the second century.

This interpretation runs contrary to generally current opinion. In 1905 the range of the few coins found was from Galba to Maximus and it has frequently been stated that the fort was occupied into the third century. Any pottery later in date than that found in the excavations covered by this interim report together with the later coins may however indicate civilian occupation of the site or the presence of some care-taking staff left behind after a military evacuation round about the middle of the second century. The question of dating is at present obscure and may in the end have to be left so because of the wholesale plundering to which the upper levels of this unfortunate site have for so long been subjected.